GenCore version 5.1.3

OM protein - protein search, using sw model

Run on: February 11, 2003, 19:46:30 ; Search time 134.543 Seconds
(without alignments)
2118.076 Million cell updates/sec

Title: US-09-497-967-6
Perfect score: 2342
Sequence: 1 MKYNILLILIISLFINELRA.....STTFAKFLSISLLFISFYLL 442

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 4569144 seqs, 644733110 residues

Total number of hits satisfying chosen parameters: 4569144

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Pending_Patents_AA_Main:*
1: /cgn2_6/ptodata/1/paa/PCTUS_COMB.pep:*
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27: /cgn2_6/ptodata/1/paa/US60_COMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	2342	100.0	442	18	US-09-497-967-6	Sequence 6, Appli
2	2342	100.0	442	18	US-09-498-612-5	Sequence 5, Appli
3	2188	93.4	409	18	US-09-497-967-61	Sequence 61, Appl
4	2174	92.8	414	3	US-07-763-352A-15	Sequence 15, Appl
5	1952.5	83.4	375	3	US-07-763-352A-3	Sequence 3, Appli
6	921	39.3	468	18	US-09-497-967-7	Sequence 7, Appli
7	921	39.3	468	18	US-09-498-612-6	Sequence 6, Appli
8	914	39.0	468	18	US-09-497-967-54	Sequence 54, Appl
9	558	23.8	105	15	US-09-196-161D-1	Sequence 1, Appli
10	544	23.2	105	15	US-09-196-161D-10	Sequence 10, Appl
11	475	20.3	89	18	US-09-497-967-9	Sequence 9, Appli
12	472	20.2	89	18	US-09-497-967-10	Sequence 10, Appl
13	451	19.3	83	18	US-09-497-967-8	Sequence 8, Appli
14	379	16.2	72	18	US-09-497-967-12	Sequence 12, Appl
15	376	16.1	69	18	US-09-497-967-11	Sequence 11, Appl
16	268.5	11.5	2176	25	US-10-176-912-511	Sequence 511, App
17	268.5	11.5	2176	25	US-10-179-524-511	Sequence 511, App
18	268.5	11.5	2176	25	US-10-184-634-511	Sequence 511, App
19	268.5	11.5	2176	25	US-10-184-644-511	Sequence 511, App
20	267	11.4	2336	25	US-10-123-155-383	Sequence 383, App
21	267	11.4	2336	25	US-10-137-871-383	Sequence 383, App
22	267	11.4	2336	25	US-10-140-472-383	Sequence 383, App
23	267	11.4	2336	25	US-10-140-805-383	Sequence 383, App
24	267	11.4	2336	25	US-10-140-864-383	Sequence 383, App
25	267	11.4	2336	25	US-10-140-923-383	Sequence 383, App
26	267	11.4	2336	25	US-10-141-756-383	Sequence 383, App
27	267	11.4	2336	25	US-10-141-759-383	Sequence 383, App
28	267	11.4	2336	25	US-10-141-761-383	Sequence 383, App
29	267	11.4	2336	25	US-10-142-426-383	Sequence 383, App
30	267	11.4	2336	25	US-10-142-885-383	Sequence 383, App
31	267	11.4	2336	25	US-10-146-731-383	Sequence 383, App
32	267	11.4	2336	25	US-10-158-790-383	Sequence 383, App
33	265	11.3	2571	24	US-10-063-545-39	Sequence 39, Appl
34	265	11.3	2571	24	US-10-063-685-39	Sequence 39, Appl
35	265	11.3	2571	25	US-10-176-912-165	Sequence 165, App
36	265	11.3	2571	25	US-10-179-524-165	Sequence 165, App
37	265	11.3	2571	25	US-10-184-634-165	Sequence 165, App
38	265	11.3	2571	25	US-10-184-644-165	Sequence 165, App
39	261	11.1	1328	25	US-10-123-155-157	Sequence 157, App
40	261	11.1	1328	25	US-10-137-871-157	Sequence 157, App
41	261	11.1	1328	25	US-10-140-472-157	Sequence 157, App
42	261	11.1	1328	25	US-10-140-805-157	Sequence 157, App
43	261	11.1	1328	25	US-10-140-864-157	Sequence 157, App
44	261	11.1	1328	25	US-10-140-923-157	Sequence 157, App
45	261	11.1	1328	25	US-10-141-756-157	Sequence 157, App

ALIGNMENTS

RESULT 1
US-09-497-967-6
; Sequence 6, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 442
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-6

Query Match 100.0%; Score 2342; DB 18; Length 442;

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  Matches  442;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60

Qy      61 EANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 EANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF 120

Qy     121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180
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Db     121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180

Qy     181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240

Qy     241 AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSN 300
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Db     241 AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSN 300

Qy     301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360
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Db     301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360

Qy     361 DGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAKVYAEATQKVQ 420
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Db     361 DGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAKVYAEATQKVQ 420

Qy     421 CASTTFAKFLSISLLFISFYLL 442
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RESULT 2
US-09-498-612-5
; Sequence 5, Application US/09498612
; GENERAL INFORMATION:
;  APPLICANT: GAERTIG, Jacek
;  APPLICANT:  DICKERSON Jr., Harry W.
;  APPLICANT:  CLARK, Theodore G.
;  APPLICANT:  THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC
;  TITLE OF INVENTION: RECOMBINANT EXPRESSION OF HETEROLOGOUS NUCLEIC ACIDS IN
;  TITLE OF INVENTION:  PROTOZOA
;  FILE REFERENCE: 235.00100101
;  CURRENT APPLICATION NUMBER: US/09/498,612
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: PCT/US00/02966
;  PRIOR FILING DATE: 2000-02-04
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
;   LENGTH: 442
;   TYPE: PRT
;   ORGANISM: Ichthyophthirius multifiliis
US-09-498-612-5

  Query Match             100.0%;  Score 2342;  DB 18;  Length 442;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-193;
  Matches  442;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60
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Db       1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60

Qy      61 EANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 EANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF 120

Qy     121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180

Qy     181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240
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Db     181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240

Qy     241 AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSN 300
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Db     241 AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSN 300

Qy     301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360
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Db     301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360

Qy     361 DGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAKVYAEATQKVQ 420
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RESULT 3
US-09-497-967-61
; Sequence 61, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 61
;   LENGTH: 409
;   TYPE: PRT
;   ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-61

  Query Match             93.4%;  Score 2188;  DB 18;  Length 409;
  Best Local Similarity   100.0%;  Pred. No. 3.9e-180;
  Matches  409;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      20 AVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARGICV 79
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Db       1 AVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARGICV 60

Qy      80 PCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVFDRSAAQCVKCKPNFYYNGG 139
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 PCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVFDRSAAQCVKCKPNFYYNGG 120

Qy     140 SPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPATAGAQANLATQCSNQCPTGT 199
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Db    121 SPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPATAGAQANLATQCSNQCPTGT 180

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          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 VLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPC 240

Qy    260 QINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSNSSTQCSQCIANYFFNGNFE 319
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Qy    320 AGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLDDGTSTNFVASATECTKCSA 379
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Db    301 AGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLDDGTSTNFVASATECTKCSA 360

Qy    380 GFFASKTTGFTAGTDTCTECTKKLTSGATAKVYAEATQKVQCASTTFAK 428
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Db    361 GFFASKTTGFTAGTDTCTECTKKLTSGATAKVYAEATQKVQCASTTFAK 409


RESULT 4
US-07-763-352A-15
; Sequence 15, Application US/07763352A
;  GENERAL INFORMATION:
;    APPLICANT:  Clark, Theodore G.
;    APPLICANT:  Dickerson, Harry W.
;    TITLE OF INVENTION:  ICH IMMOBILIZATION ANTIGEN AND FISH
;    TITLE OF INVENTION:  VACCINE
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Greenlee and Winner
;      STREET:  5370 Manhattan Circle, Ste. 201
;      CITY:  Boulder
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80303
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/763,352A
;      FILING DATE:  19910920
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Ferber, Donna M.
;      REGISTRATION NUMBER:  33,878
;      REFERENCE/DOCKET NUMBER:  15-91
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  303/499-8080
;      TELEFAX:  303/499-8089
;      TELEX:  823189
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  414 amino acids
;      TYPE:  AMINO ACID
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-763-352A-15

  Query Match             92.8%;  Score 2174;  DB 3;  Length 414;
  Best Local Similarity   99.5%;  Pred. No. 6.4e-179;
  Matches  407;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 MKYNILLILIISLFINELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQG 60

Qy     61 EANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVF 120
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Qy    121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 DRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPAT 180

Qy    181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 AGAQANLATQCSNQCPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVF 240

Qy    241 AAGAAAAGVAAVTSQCVPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSN 300
          |||||||||||||||||||:|||||||||||||||||||||||||||||||||||||||||
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Qy    301 SSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360
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Db    301 SSTQCSQCIANYFFNGNLEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLD 360

Qy    361 DGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATA 409
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Db    361 DGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATA 409


RESULT 5
US-07-763-352A-3
; Sequence 3, Application US/07763352A
;  GENERAL INFORMATION:
;    APPLICANT:  Clark, Theodore G.
;    APPLICANT:  Dickerson, Harry W.
;    TITLE OF INVENTION:  ICH IMMOBILIZATION ANTIGEN AND FISH
;    TITLE OF INVENTION:  VACCINE
;    NUMBER OF SEQUENCES:  15
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Greenlee and Winner
;      STREET:  5370 Manhattan Circle, Ste. 201
;      CITY:  Boulder
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80303
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/763,352A
;      FILING DATE:  19910920
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Ferber, Donna M.
;      REGISTRATION NUMBER:  33,878
;      REFERENCE/DOCKET NUMBER:  15-91
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  303/499-8080
;      TELEFAX:  303/499-8089
;      TELEX:  823189
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  375 amino acids
;      TYPE:  AMINO ACID
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-07-763-352A-3

  Query Match             83.4%;  Score 1952.5;  DB 3;  Length 375;
  Best Local Similarity   93.4%;  Pred. No. 7.9e-160;
  Matches  367;  Conservative    1;  Mismatches    2;  Indels   23;  Gaps    1;

Qy     17 ELRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARG 76
          | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 EFRAVPCPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARG 60

Qy     77 ICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVFDRSAAQCVKCKPNFYY 136
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 ICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVTDVFDRSAAQCVKCKPNFYY 120
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Qy    137 NGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNKNDSPATAGAQANLATQCSNQCP 196
          ||||||||||||||||||||                          ||||||||||||||||
Db    121 NGGSPQGEAPGVQVFAAGAAA----------------------AGAQANLATQCSNQCP 157

Qy    197 TGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQC 256
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    158 TGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQC 217

Qy    257 VPCQINKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSNSSTQCSQCIANYFFNG 316
          ||||:||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    218 VPCQLNKNDSPATAGAQANLATQCSTQCPTGTAIQDGVTLVFSNSSTQCSQCIANYFFNG 277

Qy    317 NFEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLDDGTSTNFVASATECTK 376
          | ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    278 NLEAGKSQCLKCPVSKTTPAHAPGNTATQATQCLTTCPAGTVLDDGTSTNFVASATECTK 337

Qy    377 CSAGFFASKTTGFTAGTDTCTECTKKLTSGATA 409
          ||||||||||||||||||||||||||||||||
Db    338 CSAGFFASKTTGFTAGTDTCTECTKKLTSGATA 370
```

RESULT 6
US-09-497-967-7
; Sequence 7, Application US/09497967
; GENERAL INFORMATION:
; APPLICANT: Clark, Theodore G.
; APPLICANT: Dickerson, Jr., Harry W.
; APPLICANT: Lin, Tian-Long
; TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
; TITLE OF INVENTION: ICHTHYOPHTHIRIUS
; FILE REFERENCE: 235.00170101
; CURRENT APPLICATION NUMBER: US/09/497,967
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-7

Query Match 39.3%; Score 921; DB 18; Length 468;
Best Local Similarity 41.8%; Pred. No. 1.5e-70;
Matches 214; Conservative 45; Mismatches 139; Indels 114; Gaps 19;

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Qy      1 MKYNILLILIIISLFINELRAVPCPDGTQTQ-AGLTDVGAADLGT---CVNCRPNFYYNGG 56
          || |||:|||||||||:::: || ||:| || | |||| |||| ||||: |||||
Db      1 MKNNILVILIISLFINQIKSANCPVGTETNTAGQVD----DLGTPANCVNCQKNFYYNNA 56

Qy     57 AA--------------QGEANGNQPFAAN---------------------------- 71
          ||               | | | ||
Db     57 AAFVPGASTCTPCPQKKDAGAQPNPPATANLVTQCNVKCPAGTAIAGGATDYAAIITECV 116

Qy     72 --------------NAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVT 117
                        ||    | | :|||| ||: ||: ||: ||||||||||||
Db    117 NCRINFYNENAPNFNAGASTCTACPVNRVGGALTAGNAATIVAQCNVACPTGTALDDGVT 176

Qy    118 DVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNK--N 175
            : ||  :|||| |||||| : | | | | |          ||| ||  | |
Db    177 TDYVRSFTECVKCRLNFYYNGNN--GNTP----FNPG---------KSQCTPCPAIKPAN 221

Qy    176 DSPATAGAQANLATQCSNQCPTGTVLDDGVT--LVFNTSATLCVKCRPNFYYNGGSPQGE 233
            : || |  | :  ||:  || ||:  ||  :  ||   |  | |||| |
Db    222 VAQATLGNDATITAQCNVACPDGTISAAGVNNWVAQNTE---CTNCAPNFYNN------N 272

Qy    234 APGVQVFAAGAAAAGVAAVTSQCVPCQINKN-DSPATAGAQANLATQCSTQCPTGTAIQD 292
          ||   | |          | |:|| ||:  : |||| | || ||:  || ||||
Db    273 APN---FNPG---------NSTCLPCPANKDYGAEATAGGAATLAKQCNIACPDGTAIAS 320

Qy    293 GVTLVFSNSSTQCSQCIANYFFNG-NFEAGKSQCLKCPVSKTTPAHA-PGNTATQATQCL 350
          | |  :   |:|  | ||::|:| ||:|| |:|  || :|   | |  | |||   ||
Db    321 GAT-NYVILQTECLNCAANFYFDGNNFQAGSSRCKACPANKVQGAVATAGGTATLIAQCA 379

Qy    351 TTCPAGTVLDDGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAK 410
            ||||||| |||:: :  :|:|| ||:| |: :| | : || |||| | |||||||
Db    380 LECPAGTVLTDGTTSTYKQAASECVKCAANFYTTKQTDWVAGIDTCTSCNKKLTSGAEAN 439

Qy    411 VYAEATQKVQCASTTFAKFLSISLLFISFYLL 442
          :   | : :||    || |||||||  ||:|||
Db    440 LPESAKKNIQC---DFANFLSISLLLISYYLL 468
```

RESULT 7
US-09-498-612-6
; Sequence 6, Application US/09498612
; GENERAL INFORMATION:
; APPLICANT: GAERTIG, Jacek
; APPLICANT: DICKERSON Jr., Harry W.
; APPLICANT: CLARK, Theodore G.
; APPLICANT: THE UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC
; TITLE OF INVENTION: RECOMBINANT EXPRESSION OF HETEROLOGOUS NUCLEIC ACIDS IN
; TITLE OF INVENTION: PROTOZOA
; FILE REFERENCE: 235.00100101
; CURRENT APPLICATION NUMBER: US/09/498,612
; CURRENT FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 60/118,634
; PRIOR FILING DATE: 1999-02-04
; PRIOR APPLICATION NUMBER: 60/122,372
; PRIOR FILING DATE: 1999-03-02
; PRIOR APPLICATION NUMBER: 60/124,905
; PRIOR FILING DATE: 1999-03-17
; PRIOR APPLICATION NUMBER: 60/131,121
; PRIOR FILING DATE: 1999-04-27
; PRIOR APPLICATION NUMBER: PCT/US00/02966
; PRIOR FILING DATE: 2000-02-04
; NUMBER OF SEQ ID NOS: 14
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 468
; TYPE: PRT
; ORGANISM: Ichthyophthirius multifiliis
US-09-498-612-6

Query Match 39.3%; Score 921; DB 18; Length 468;
Best Local Similarity 41.8%; Pred. No. 1.5e-70;
Matches 214; Conservative 45; Mismatches 139; Indels 114; Gaps 19;

```
Qy      1 MKYNILLILIIISLFINELRAVPCPDGTQTQ-AGLTDVGAADLGT---CVNCRPNFYYNGG 56
          || |||:|||||||||:::: || ||:| || | |||| |||| ||||: |||||
Db      1 MKNNILVILIISLFINQIKSANCPVGTETNTAGQVD----DLGTPANCVNCQKNFYYNNA 56

Qy     57 AA--------------QGEANGNQPFAAN---------------------------- 71
          ||               | | | ||
Db     57 AAFVPGASTCTPCPQKKDAGAQPNPPATANLVTQCNVKCPAGTAIAGGATDYAAIITECV 116

Qy     72 --------------NAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVT 117
                        ||    | | :|||| ||: ||: ||: ||||||||||||
Db    117 NCRINFYNENAPNFNAGASTCTACPVNRVGGALTAGNAATIVAQCNVACPTGTALDDGVT 176

Qy    118 DVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNK--N 175
            : ||  :|||| |||||| : | | | | |          ||| ||  | |
Db    177 TDYVRSFTECVKCRLNFYYNGNN--GNTP----FNPG---------KSQCTPCPAIKPAN 221

Qy    176 DSPATAGAQANLATQCSNQCPTGTVLDDGVT--LVFNTSATLCVKCRPNFYYNGGSPQGE 233
            : || |  | :  ||:  || ||:  ||  :  ||   |  | |||| |
Db    222 VAQATLGNDATITAQCNVACPDGTISAAGVNNWVAQNTE---CTNCAPNFYNN------N 272

Qy    234 APGVQVFAAGAAAAGVAAVTSQCVPCQINKN-DSPATAGAQANLATQCSTQCPTGTAIQD 292
```

```
Db    273 APN---FNPG---------NSTCLPCPANKDYGAEATAGGAATLAKQCNIACPDGTAIAS 320

Qy    293 GVTLVFSNSSTQCSQCIANYFFNG-NFEAGKSQCLKCPVSKTTPAHA-PGNTATQATQCL 350

Db    321 GAT-NYVILQTECLNCAANFYFDGNNFQAGSSRCKACPANKVQGAVATAGGTATLIAQCA 379

Qy    351 TTCPAGTVLDDGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAK 410

Db    380 LECPAGTVLTDGTTSTYKQAASECVKCAANFYTTKQTDWVAGIDTCTSCNKKLTSGAEAN 439

Qy    411 VYAEATQKVQCASTTFAKFLSISLLFISFYLL 442

Db    440 LPESAKKNIQC---DFANFLSISLLLISYYLL 468


RESULT 8
US-09-497-967-54
; Sequence 54, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 54
;   LENGTH: 468
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  synthetic G5
;   OTHER INFORMATION: proline mutant antigen protein
US-09-497-967-54

  Query Match             39.0%;  Score 914;  DB 18;  Length 468;
  Best Local Similarity   41.6%;  Pred. No. 6e-70;
  Matches  213;  Conservative   45;  Mismatches  140;  Indels  114;  Gaps   19;

Qy      1 MKYNILLILIISLFINELRAVPCPDGTQTQ-AGLTDVGAADLGT---CVNCRPNFYYNGG 56

Db      1 MKNNIPVILIISLFINQIKSANCPVGTETNTAGQVD----DLGTPANCVNCQKNFYYNNA 56

Qy     57 AA---------------QGEANGNQPFAAN---------------------------- 71

Db     57 AAFVPGASTCTPCPQKKDAGAQPNPPATANLVTQCNVKCPAGTAIAGGATDYAAIITECV 116

Qy     72 --------------NAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDGVT 117

Db    117 NCRINFYNENAPNFNAGASTCTACPVNRVGGALTAGNAATIVAQCNVACPTGTALDDGVT 176

Qy    118 DVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTSQCVPCQLNK--N 175

Db    177 TDYVRSFTECVKCRLNFYYNGNN--GNTP----FNPG---------KSQCTPCPAIKPAN 221

Qy    176 DSPATAGAQANLATQCSNQCPTGTVLDDGVT--LVFNTSATLCVKCRPNFYYNGGSPQGE 233

Db    222 VAQATLGNDATITAQCNVACPDGTISAAGVNNWVAQNTE---CTNCAPNFYNN------N 272

Qy    234 APGVQVFAAGAAAAGVAAVTSQCVPCQINKN-DSPATAGAQANLATQCSTQCPTGTAIQD 292
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Db    273 APN---FNPG---------NSTCLPCPANKDYGAEATAGGAATLAKQCNIACPDGTAIAS 320

Qy    293 GVTLVFSNSSTQCSQCIANYFFNG-NFEAGKSQCLKCPVSKTTPAHA-PGNTATQATQCL 350

Db    321 GAT-NYVILQTECLNCAANFYFDGNNFQAGSSRCKACPANKVQGAVATAGGTATLIAQCA 379

Qy    351 TTCPAGTVLDDGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAK 410

Db    380 LECPAGTVLTDGTTSTYKQAASECVKCAANFYTTKQTDWVAGIDTCTSCNKKLTSGAEAN 439

Qy    411 VYAEATQKVQCASTTFAKFLSISLLFISFYLL 442

Db    440 LPESAKKNIQC---DFANFLSISLLLISYYLL 468


RESULT 9
US-09-196-161D-1
; Sequence 1, Application US/09196161D
; GENERAL INFORMATION:
;  APPLICANT:  SIN, Yoke Min
;  APPLICANT:  LAM, Toong Jin
;  APPLICANT:  GONG, Zhiyuan
;  TITLE OF INVENTION:  A RECOMBINANT VACCINE AGAINST FISH INFECTIOUS DISEASES
;  FILE REFERENCE:  Applied Research
;  CURRENT APPLICATION NUMBER: US/09/196,161D
;  CURRENT FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  9803188-3
;  PRIOR FILING DATE:  1998-09-28
;  NUMBER OF SEQ ID NOS:  17
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 1
;   LENGTH: 105
;   TYPE: PRT
;   ORGANISM: Ichthyophthirius multifilliis
;   FEATURE:
;   NAME/KEY: MUTAGEN
;   LOCATION: (2)
;   OTHER INFORMATION: A/S WHERE S HAS BEEN DERIVED FROM THE SYNTHETIC
;   OTHER INFORMATION: GENE.
;   NAME/KEY: MUTAGEN
;   LOCATION: (4)..(105)
;   OTHER INFORMATION: Q - THE GLUTAMINE CODONS TAA AND TAG IN THE
;   OTHER INFORMATION: ORIGINAL SEQUENCE, HAVE BEEN REPLACED WITH THE
;   OTHER INFORMATION: UNIVERSAL GLUTAMINE CODONS CAG OR CAA IN THE
;   OTHER INFORMATION: SYNTHETIC GENE
;   NAME/KEY: MUTAGEN
;   LOCATION: (34)
;   OTHER INFORMATION: V/G WHERE G HAS BEEN DERIVED FROM THE SYNTHETIC
;   OTHER INFORMATION: GENE.
;   NAME/KEY: MUTAGEN
;   LOCATION: (105)
;   OTHER INFORMATION: V/I WHERE I HAS BEEN DERIVED FROM THE SYNTHETIC
;   OTHER INFORMATION: GENE.
US-09-196-161D-1

  Query Match             23.8%;  Score 558;  DB 15;  Length 105;
  Best Local Similarity   100.0%;  Pred. No. 5.6e-40;
  Matches  105;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     56 GAAQGEANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDG 115

Db      1 GAAQGEANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDG 60

Qy    116 VTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGV 160

Db     61 VTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGV 105


RESULT 10
US-09-196-161D-10
; Sequence 10, Application US/09196161D
; GENERAL INFORMATION:
;  APPLICANT:  SIN, Yoke Min
```

```
;  APPLICANT:  LAM, Toong Jin
;  APPLICANT:  GONG, Zhiyuan
;  TITLE OF INVENTION:  A RECOMBINANT VACCINE AGAINST FISH INFECTIOUS DISEASES
;  FILE REFERENCE:  Applied Research
;  CURRENT APPLICATION NUMBER: US/09/196,161D
;  CURRENT FILING DATE:  1998-11-20
;  PRIOR APPLICATION NUMBER:  9803188-3
;  PRIOR FILING DATE:  1998-09-28
;  NUMBER OF SEQ ID NOS:  17
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 10
;    LENGTH: 105
;    TYPE: PRT
;    ORGANISM: Ichthyophthirius multifiliis
US-09-196-161D-10

  Query Match             23.2%;  Score 544;  DB 15;  Length 105;
  Best Local Similarity   96.2%;  Pred. No. 9.1e-39;
  Matches  101;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy      56 GAAQGEANGNQPFAANNAARGICVPCQINRVGSVTNAGDLATLATQCSTQCPTGTALDDG 115
           |:|||||||||||||||||||||||||||||| |||||||||||||||||||||||||
Db       1 GSAQGEANGNQPFAANNAARGICVPCQINRVGSGTNAGDLATLATQCSTQCPTGTALDDG 60

Qy     116 VTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGV 160
           ||||||||||||||||||||||||||||||:||||||||||:
Db      61 VTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGLQVFAAGAAAAGI 105


RESULT 11
US-09-497-967-9
; Sequence 9, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 9
;    LENGTH: 89
;    TYPE: PRT
;    ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-9

  Query Match             20.3%;  Score 475;  DB 18;  Length 89;
  Best Local Similarity   100.0%;  Pred. No. 6.9e-33;
  Matches   89;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     106 CPTGTALDDGVTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTS 165
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 CPTGTALDDGVTDVFDRSAAQCVKCKPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTS 60

Qy     166 QCVPCQLNKNDSPATAGAQANLATQCSNQ 194
           |||||||||||||||||||||||||||||
Db      61 QCVPCQLNKNDSPATAGAQANLATQCSNQ 89


RESULT 12
US-09-497-967-10
; Sequence 10, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
;    LENGTH: 89
;    TYPE: PRT
;    ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-10

  Query Match             20.2%;  Score 472;  DB 18;  Length 89;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-32;
  Matches   89;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     195 CPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTS 254
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 CPTGTVLDDGVTLVFNTSATLCVKCRPNFYYNGGSPQGEAPGVQVFAAGAAAAGVAAVTS 60

Qy     255 QCVPCQINKNDSPATAGAQANLATQCSTQ 283
           |||||||||||||||||||||||||||||
Db      61 QCVPCQINKNDSPATAGAQANLATQCSTQ 89


RESULT 13
US-09-497-967-8
; Sequence 8, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
;    LENGTH: 83
;    TYPE: PRT
;    ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-8

  Query Match             19.3%;  Score 451;  DB 18;  Length 83;
  Best Local Similarity   100.0%;  Pred. No. 7.5e-31;
  Matches   83;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      23 CPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARGICVPCQ 82
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 CPDGTQTQAGLTDVGAADLGTCVNCRPNFYYNGGAAQGEANGNQPFAANNAARGICVPCQ 60
```

```
Qy      83 INRVGSVTNAGDLATLATQCSTQ 105
           |||||||||||||||||||||||
Db      61 INRVGSVTNAGDLATLATQCSTQ 83


RESULT 14
US-09-497-967-12
; Sequence 12, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
;   LENGTH: 72
;   TYPE: PRT
;   ORGANISM: Ichthyophthirius multifiliis
US-09-497-967-12

  Query Match             16.2%;  Score 379;  DB 18;  Length 72;
  Best Local Similarity   100.0%;  Pred. No. 1e-24;
  Matches   72;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     353 CPAGTVLDDGTSTNFVASATECTKCSAGFFASKTTGFTAGTDTCTECTKKLTSGATAKVY 412
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Qy     413 AEATQKVQCAST 424
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Db      61 AEATQKVQCAST 72


RESULT 15
US-09-497-967-11
; Sequence 11, Application US/09497967
; GENERAL INFORMATION:
;  APPLICANT: Clark, Theodore G.
;  APPLICANT:  Dickerson, Jr., Harry W.
;  APPLICANT:  Lin, Tian-Long
;  TITLE OF INVENTION: DIAGNOSTIC AND PROTECTIVE ANTIGEN GENE SEQUENCES OF
;  TITLE OF INVENTION:  ICHTHYOPHTHIRIUS
;  FILE REFERENCE: 235.00170101
;  CURRENT APPLICATION NUMBER: US/09/497,967
;  CURRENT FILING DATE:  2000-02-04
;  PRIOR APPLICATION NUMBER: 60/131,121
;  PRIOR FILING DATE: 1999-04-27
;  PRIOR APPLICATION NUMBER: 60/118,634
;  PRIOR FILING DATE: 1999-02-04
;  PRIOR APPLICATION NUMBER: 60/122,372
;  PRIOR FILING DATE: 1999-03-02
;  PRIOR APPLICATION NUMBER: 60/124,905
;  PRIOR FILING DATE: 1999-03-17
;  NUMBER OF SEQ ID NOS: 102
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 11
;   LENGTH: 69
;   TYPE: PRT
;   ORGANISM: Ichthyophthirius multifiliis

US-09-497-967-11

  Query Match             16.1%;  Score 376;  DB 18;  Length 69;
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  Matches   69;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     284 CPTGTAIQDGVTLVFSNSSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTA 343
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Db       1 CPTGTAIQDGVTLVFSNSSTQCSQCIANYFFNGNFEAGKSQCLKCPVSKTTPAHAPGNTA 60

Qy     344 TQATQCLTT 352
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Db      61 TQATQCLTT 69


Search completed: February 11, 2003, 19:53:48
Job time : 137.543 secs
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